

REMARKS

This Application has been reviewed in light of the non-Final Office Action dated September 6, 2006. Claims 1-36 are pending, with Claims 1, 13, and 22 in independent form. Claims 1 and 22 have been amended for purposes of clarity, such amendments being submitted not to have narrowed the scope of these claims. Favorable reconsideration is respectfully requested.

The Office Action reiterates its rejection of Claims 1-27 and 30-36 under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Patent No. 6, 441,919 (Parker et al.). Additionally, the Office Action maintains its rejection of Claims 28 and 29 under 35 U.S.C. §103(a) as allegedly unpatentable over the Parker et al. patent in view of U.S. Patent No. 6,049,390 (Notredame et al.). Applicant respectfully submits that the amended claims are patentable over the cited references, taken separately or in any proper combination, for at least the following reasons.

Claim 1 requires, among other things, an identifying step that includes outlining recurring image elements, or portions thereof, and outlining variable image elements, or portions thereof, the outlining forming element intersection areas. In addition, Claim 1 requires inserting into at least some of the element intersection areas, stored recurring image elements, or portions thereof. Further, Claim 1 requires raster image processing at least some of the element intersection areas with stored variable image elements.

The Office Action, at the top of page 3, alleges that the Parker et al. patent

shows that data representative of image intersection/overlapping is stored as part of the reusable and single use image data in the form of a pixel map and a mask, which is analogous to outlining image elements as both convey image location and the existence of intersection/overlapping. Further, Parker et al. states creating a new, single object by combining two reusable objects that overlap each other (see column 8, lines 32-41). Therefore, Parker discloses the newly added limitations of Claims 1, 13, and 22.

Applicant respectfully disagrees with this understanding of the Parker et al. patent. In particular, the Parker et al. patent is understood to generate an object list for each page in a document. See FIG. 2, steps 42, 44, and 52, as well as column 7, lines 63-66. As described with regard to FIG. 2 of the Parker et al. patent, such page object list is generated by considering each object in a page; making sure, if the considered object is a reusable object, that it is stored in the cache 30 of FIG. 1; and then adding the considered object to the page object list. See column 7, lines 3-66. If a reusable object is not found in the cache 30, such object is rendered by a rasterizer-compositor (FIG. 1) as a pixel map and a mask, both of which are stored in the cache 30. See column 7, lines 16-25. The Parker et al. patent states that “[t]he mask identifies which pixels of the pixel map are transparent...” See column 7, lines 25-28.

After all of the objects in a page have been considered, and a page object list created, the scheduler 29 assigns the page to an available rasterizer-compositor (step 58) for rendering into a frame buffer. See column 7, lines 63-66.

[I]n assigning the page, the scheduler passes the page object list for the page to the assigned rasterizer-compositor, along with a sequence number to place the page in the sequence of pages in the print run. The page object list need not literally be a list; it can be any data structure that identifies the necessary objects and their paint order...

See column 7, lines 66 to column 8, line 8. The Parker et al. patent then states that “having a page assignment, a rasterizer-compositor paints the objects into the frame buffer according to the paint order of the page, by compositing reusable elements into the frame buffer and rendering single-use elements into the frame buffer.” See column 8, lines 9-13. Accordingly, Applicants understand this portion of the Parker et al. patent to describe painting objects into the frame buffer layer-by-layer according to the paint order of the page.

Instead of merely painting objects layer-by-layer, the Parker et al. patent states that in a alternative implementation, “the scheduler can combine two reusable objects and create a new ‘single object’ in the cache to improve performance...” See column 8, lines 32-35. “For example, it can be advantageous to combine objects that overlap each other.” Column 8, lines 35-37. “When objects are combined, the new, combined object can be used wherever

the two (or more) original objects are adjacent to each other in the paint order-or at least where neither of them overlaps, or is overlapped by, any object that lies between them in the paint order-and are in the same paint order if they overlap each other.” Column 8, lines 42-47.

In view of the above understanding of the Parker et al. patent, Applicants have not found any teaching or suggestion of outlining recurring image elements, or portions thereof, and outlining variable image elements, or portions thereof, the outlining forming element intersection areas, as required by Claim 1.

In this regard, the Office Action, on the transition between pages 2 and 3, states that the Parker et al. patent “discloses storing page layout information, which is information that conveys which objects appear where on which pages of the document and what the paint order of the objects on each page is” Even if this characterization of the Parker et al. patent is correct, which Applicants do not concede, Applicants respectfully submit that merely describing where objects appear on a page and what their paint order is does not teach or suggest (a) the outlining of elements, (b) the outlining of elements to form element intersection areas, (c) inserting into at least some of the element intersection areas, stored recurring image elements, or portions thereof, and (d) raster image processing at least some of the element intersection areas with stored variable image elements, as required by Claim 1. Applicants respectfully submit that merely describing where an object is on a page and what an object paint order is, does not teach or suggest actually outlining the object, or a portion thereof, to form an element intersection area with another object, or a portion thereof, and then inserting an element, or a portion thereof, into the element intersection area, as included within the scope of Claim 1.

Further in regard to these features of Claim 1, the Office Action, at the top of page 3, refers to the Parker et al. patent’s pixel map and mask. As described at column 7, lines 16-32, however, the Parker et al. patent refers to these terms in the context of rendering and storing a reusable object in the cache 30. The mask identifies which pixels of the pixel map are transparent. Nowhere, however, has the Parker et al. patent been found to teach or suggest that such transparent pixels have anything to do with an outline of an object, or a portion thereof, the outlining forming an element intersection area; and the insertion of an

element, or a portion thereof, into the element intersection area, as included within the scope of Claim 1. Similarly, the pixel map also is submitted not to teach or suggest outlining an object, the outlining forming of an element intersection area; and the insertion of an element, or a portion thereof, into the element intersection area, as included within the scope of Claim 1. Accordingly, Applicant respectfully submits that the Parker et al. patent's teaching of storing a reusable object in a cache 30 as a pixel map and a mask is not analogous to outlining an image element and does not convey forming an element intersection area and the insertion of an element, or a portion thereof, into the element intersection area, as included within the scope of Claim 1.

Still further in regard to these features of Claim 1, the Office Action, at the top of page 3, refers to the Parker et al. patent's combining of two reusable objects that overlap each other to create a new single object. However, while this portion (col. 8, lines 32-47) of the Parker et al. patent may use the word "overlap", it's similarity to Claim 1 is believed to go no further. As described above, according to the Parker et al. patent, after an object list has been generated, and thereafter a page is submitted to a rasterizer-compositor for rendering, the Parker et al. patent is understood to teach two procedures for rendering: namely, painting objects layer-by-layer in their paint order, or doing the same, but combining overlapping objects. See column 7, line 63 to column 8, line 17, and column 8, lines 32-47.

The first procedure is understood to teach merely painting objects layer by layer in their paint order. Nothing regarding this technique is believed to teach or suggest (a) the outlining of elements, (b) the outlining of elements to form element intersection areas, (c) inserting into at least some of the element intersection areas, stored recurring image elements, or portions thereof, and (d) raster image processing at least some of the element intersection areas with stored variable image elements, as required by Claim 1.

The second procedure is understood to teach creating a new object by combining two overlapping objects. Applicants respectfully submit that combining two overlapping objects does not teach or suggest (a) the outlining of elements, (b) the outlining of elements to form element intersection areas, (c) inserting into at least some of the element intersection areas, stored recurring image elements, or portions thereof, and (d) raster image processing at least some

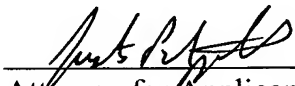
of the element intersection areas with stored variable image elements, as required by Claim 1.

With regard to (c) and (d) in the previous paragraph, merely combining two objects into a single object is especially submitted not to teach or suggest inserting into at least some of the element intersection areas, stored recurring image elements, or portions thereof, and raster image processing at least some of the element intersection areas with stored variable image elements, as required by Claim 1. In fact, the Parker et al. patent is believed to be silent in regard to element intersection areas and any particular treatment of them by inserting into at least some of them, stored recurring image elements, or portions thereof, and raster image processing at least some of the them with stored variable image elements, as required by Claim 1. To elaborate, if the Parker et al. patent were to teach these features, Applicants respectfully submit that the Parker et al. patent would have to teach or suggest, among other things, inserting on object, or a portion thereof, stored in the cache 30, into an element intersection area. However, the Parker et al. patent had not been found to teach or suggest at least this arrangement. (It should be noted that even if the Parker et al. patent were deemed to teach inserting on object, or a portion thereof, stored in the cache 30, into an element intersection area, it still would not meet the limitations of Claim 1. In particular, the Parker et al. patent would have to additionally teach, among other things, inserting into at least some of the element intersection areas, stored recurring image elements, or portions thereof, and raster image processing at least some of the element intersection areas with stored variable image elements, as required by Claim 1.)

For at least the above-discussed reasons, Applicants respectfully request reconsideration of the rejection of Claim 1. Independent Claims 13 and 22 include the same or similar features as those described above in connection with Claim 1, and are submitted to be patentable for at least the same reasons. The other claims in this application depend from one of the independent claims discussed above and also are submitted to be patentable for at least the same reasons. However, since each dependent claim is deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

In view of the forgoing remarks, Applicants respectfully request favorable reconsideration and the allowance of the present application.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.